UNIDADE LOCAL DE SAÚDE
SÃO JOSÉ

ROBOTIC SACROCOLPOPEXY WITH ANTERIOR AND POSTERIOR MESH PLACEMENT:

FOLLOWING THE LEARNING CURVE OF A SINGLE LAPAROSCOPIC EXPERIENCED SURGEON IN A TERTIARY CENTER

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Hypothesis

Evaluate the **learning curve of robotic sacrocolpopexy** (RASC) in a tertiary center.
Assess operative time, complication rates, surgical success, and patient-reported outcomes (PROs).
Performed by a laparoscopy-experienced surgeon with no prior RASC experience.

Methods

Retrospective cohort, 23 consecutive patients, 12-month follow-up.
Endpoints:

- Objective surgical success (POP-Q)
- Operative time, blood loss, length of stay
- Complications ≥ Clavien-Dindo II
- Mesh-related complications, reinterventions
- Subjective success (PFIQ-7)

KEY RESULTS

Surgical success at 12 months: 100%

Mean operative time: 198 min → decreased significantly after 4th case (CUSUM analysis)

Blood loss: 57,8 mL

Hospital stay: 1.17 days

Complications: 8.68% (1 bladder injury, 1 vaginal injury); no bowel injuries, mesh issues, or reinterventions

PFIQ-7 score at 12 months: 36.27 (improved QoL across all domains)

Interpretation

Learning curve did not affect core outcomes (p>0,05) surgical success, blood loss, length of stay, complication profile.
Rapid transition from laparoscopy to robotics: operative times stabilized after only 4 cases.
Safety maintained throughout the learning phase: no major complications or reoperations.
Patient-reported outcomes improved significantly, confirming clinical benefit.

Take-Home Message

1. RASC is **safe and effective** even in the early learning curve.
2. **Quick adaptation** by a laparoscopic-experienced surgeon.
3. **Improved quality of life** confirmed by Patient Reported Outcomes.
4. Findings support wider adoption of RASC in specialized centers.

"RASC is safe and effective with a small learning curve for previously experienced laparoscopic surgeons."

www.ics-eus.org/2025/abstract/ 26992